

- B1
- (b) annealing a primer, which has a sequence complementary to a part of the sequence of the nucleic acid molecule, or a nucleic acid molecule to the nucleic acid molecule or the primer, respectively;
  - (c) providing a solution which contains DNA polymerase and one type of dye-labeled dNTP, where N is A, T or U, G or C, or RNA polymerase and one type of dye-labeled NTP, where N is A, U, G or C, to said immobilized nucleic acid molecule, and allowing the nucleotide to react with the 3' end of said primer, whereby a nucleotide, which forms a base-pair with a base opposed to the reaction site, is bound to the primer by action of the polymerase;
  - (d) detecting a bound, dye-labeled dNTP or NTP;
  - (e) disrupting the dye molecule of the bound, dye-labeled dNTP or NTP;
  - (f) repeating (c) to (e) while changing the type of dye-labeled dNTP or NTP in turn, to sequentially bind dNTPs or NTPs which forms a base-pair with the nucleotides of the nucleic acid molecule; and
  - (g) determining a nucleotide sequence of the nucleic acid molecule based on the types of the sequentially bound dNTPs or NTPs.
- 

B2 3. (Amended) The method of Claim 1, wherein (d) comprises optically detecting the dye molecule of said dye-labeled dNTP or NTP.

4. (Amended) The method of Claim 1, wherein (d) comprises exciting dye molecules by irradiation of a laser beam and detecting the thus released fluorescent signal.

---

B3 6. (Amended) The method of Claim 1, wherein said disruption of dye molecules in (e) is performed by irradiation of a laser beam stronger than that in (d). }

---